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30th July 2008

United States Patent & Trademark Office
Commissioner for Patents,
Customer Services Window,
PO Box 1450,
Alexandria,
VA 22314,
United States of America.

Dear Mr Le Boulluec,

Re: Application No. 10/579553

Thank you for your assessment of the above application dated 8th May 2008.

Having considered the assessment I would like to take this opportunity to challenge it and reassert my view that the application is with merit.

Point 2:   Your assessment states that, on page 4 of my application, the first and second differentials are defined as being the same variable. This is not the case. The text reads *"**the rate of change** of the pressure of the gaseous fraction with incremental changes in volume v, ie the 1st differential is"* as described by Equation (1). The text continues "and *the rate of change of the rate of change* of the pressure of the gaseous fraction with incremental changes in volume v, ie the 2nd differential is" as described by Equation (2).

I believe that the text is correct, concise and require no correction.

Point 3:   All the requested corrections have been accepted.

Point 5.1:   Claim 1, your assessment equates "measure a rate of change of pressure" with "rate of depressurization". The text from Alber has been taken out of context. Alber uses this phrase to draw attention to a requirement that the hose connecting the water vessels 44 and 46 should be of adequate size so that the flow of water immediately reflect the change in height of the vessels. Otherwise, there would be a lag between the volume change and pressure change measurements and therefore could not be used as matching pairs. Unlike mine, Alber's text is not used in the context of the rate of change of pressure in the main chamber.

Point 5.2:   Claim 1, your assessment equates "associated with respective volume changes" with "V_E is the change in the volume of the chamber 10 caused by the pressure reduction and is assumed to be a function of pressure". My text refers to the incremental changes to the gaseous phase in the main chamber. Alber's V_E is a volume correction figure, determined during 2 or more controls, to allow for the deflection of the wall of the main chamber 10 resulting from the change in pressure. This is not the change in volume of the gaseous phase in the main chamber 10 as measured during the test.

Point 5.3:   Claim 3, your assessment equates "measure the incremental pressure changes" with "measuring the air pressure within the vessel". Alber measures the absolute pressure within the vessel. My invention does not measure absolute pressure; it measures incremental pressure changes ie gauge pressure. As stated in the abstract "Significantly, there is no requirement for knowledge of the absolute pressure or temperature."

Point 5.4:   Claim 8, as per response to point 5.1

Point 5.5:   Claim 8, as per response to point 5.2

Essentially, Alber has simply taken volume, pressure and temperature measurements, applied Boyle's / Charles' Law and derived the volume of the body in the chamber. My invention applies a derivative of Boyle's Law to volume and pressure changes, ie gauge pressure, and derives the volume.

In conclusion, I believe that my application does represent an inventive step and has merit as a patentable idea. I believe that claims 1, 3 and 8 are entirely valid, but I am willing to drop claims 2, 4, 5, 6 and 7. Further, I would suggest including a supportive claim to reflect the lack of requirement for the knowledge of absolute pressure or temperature.

Attached is a copy of the revised and corrected claims. Hopefully, this letter answers your concerns and the application can proceed.

Yours sincerely,

Narinder Bains